

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION

See paragraph 2 below

International application No.
PCT/US2005/006875

International filing date (day/month/year)
04.03.2005

Priority date (day/month/year)
24.03.2004

International Patent Classification (IPC) or both national classification and IPC
H04L29/08, H04L29/12

Applicant

ELECTRONICS FOR IMAGING, INC.

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - a sequence listing
 - table(s) related to the sequence listing
 - b. format of material:
 - in written format
 - in computer readable form
 - c. time of filing/furnishing:
 - contained in the international application as filed.
 - filed together with the international application in computer readable form.
 - furnished subsequently to this Authority for the purposes of search.
3. In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or
industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	13-24
	No: Claims	1-12
Inventive step (IS)	Yes: Claims	
	No: Claims	1-24
Industrial applicability (IA)	Yes: Claims	1-24
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the International application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1 Cited documents

Reference is made to the following documents:

D1: US 2002/062366 A1 (ROY JOYDEEP ET AL) 23 May 2002 (2002-05-23)

D2: ANONYMOUS: "Dynamic Printer Selection system using DNS service"

RESEARCH DISCLOSURE, no. 449, 1 September 2001 (2001-09-01), page 1549, XP002331192 Havant, UK, article No. 44996

2 Inventive Step

2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 does not involve an inventive step in the sense of Article 33(3) PCT.

2.1.1 The document D1 is regarded as being the closest prior art to the subject-matter of claim 1, and discloses (the references in parentheses applying to this document):

A method (cf. cl. 5, ln. 60 - cl. 6, ln. 9) for use with a first network device (cf. '13', Fig. 5A) coupled to a first network, the first network device comprising information identifying the first network device on the first network (cf. "responder's machine address (MAC address) as well as the IP address", cl. 5, ln. 1-2), the method comprising:

- receiving an identification message from the first network device, the identification message comprising the identifying information of the first network device (cf. "DLP response protocol", cl. 4, ln. 67 - cl. 5, ln. 2 and Fig. 5A);
- parsing the identification message to extract the identifying information of the first network device ("The device discovery task uses parsing functions ...", cl. 4, ln. 3-4 and "the responder's IP address ... is extracted from these

response packets", cl. 4, ln. 13-15); and

- searching a directory table to identify a second network device ('14', Fig. 5A) coupled to the first network ("The device discovery task then generates ... the buffer from the information collected in the linked list", cl. 5, ln 44-46 and "the printer 12 ... returns a web page ... with links to the other discovered printers 13 and 14", cl. 5, ln. 64 - cl. 6, ln. 1), the second network device comprising information identifying the second device on the first network (cf. "responder's machine address (MAC address) as well as the IP address", cl. 5, ln. 1-2).

2.1.2 The subject-matter of claim 1 therefore differs from this known method in that the method is applied in an environment, in which the first network coupled to a second network, for which no technical problem can be seen.

2.1.3 As the claimed method defined by the method steps does not involve said second network at all, the claim with respect to that differentiating feature is merely an aggregation and not a true combination of features providing a functional interaction between the features such that the combined technical effect different from, e.g. greater than, the sum of the technical effects of the individual features is achieved.

Connecting one network to another is however broadly known in the field of IP networks. Therefore claim 1 of the present application cannot be considered as involving an inventive step (Article 33(3) PCT).

2.1.4 The additional features of the dependent claims do not add anything new or inventive to the independent claims, because these features are known from the above mentioned prior art (i.e. the network device comprising PDA, printer, etc, comprising a network interface, the network (i.e. Internet) consisting of multiple interconnected networks, identifying information is an address) or common measures (i.e. network comprising a firewall).

2.2 The subject-matter of independent claim 13 does also not meet the criteria of Article 33(1) PCT, because it does not involve an inventive step in the sense of Article 33(3)

PCT.

2.2.1 Again the document D1 is regarded as being the closest prior art to the subject-matter of claim 13, and shows (the references in parentheses applying to this document):

A method (cf. cl. 5, ln. 60 - cl. 6, ln. 9) for use with first and second network devices coupled to a first network (cf. '13' and '14', Fig. 5A), the first network device comprising information identifying the first network device on the first network, the second network device comprising information identifying the second network device on the first network (cf. "responder's machine address (MAC address) as well as the IP address", cl. 5, ln. 1-2), the method comprising:

- receiving a first identification message from the first network device, the first identification message comprising the identifying information of the first network device (cf. "DLP response protocol", cl. 4, ln. 67 - cl. 5, ln. 2 and Fig. 5A "Reply");
- parsing the first identification message to extract the identifying information of the first network device ("The device discovery task uses parsing functions ...", cl. 4, ln. 3-4 and "the responder's IP address ... is extracted from these response packets", cl. 4, ln. 13-15);
- registering the first network device in a directory table according to the identifying information of the first network device (cf. "... responder's IP address is added to the list", cl. 4, ln. 64 - 65);
- receiving a second identification message from the second network device, the second identification message comprising the identifying information of the second network device (cf. "DLP response protocol", cl. 4, ln. 67 - cl. 5, ln. 2 and Fig. 5A "Reply");
- parsing the second identification message to extract the identifying information of the second network device ("The device discovery task uses parsing functions ...", cl. 4, ln. 3-4 and "the responder's IP address ... is extracted from these response packets", cl. 4, ln. 13-15).

2.2.2 The subject-matter of claim 13 differs from this known method in that it further comprises the step of searching the directory table to identify the first network

device based on the identifying information of the second network device and applying the method in an environment of the first network coupled to a second network.

2.2.3 The problem to be solved by the present invention may be regarded as how a client connected to a first network can locate network devices connected to the same network via an external directory.

2.2.4 The solution proposed in claim 13 of the present application cannot be considered as involving an inventive step (Article 33(3) PCT), because the differentiating feature (item 2.2.2 above) is described in document D2 (cf. item 3. and 4.) as providing the same advantages as in the present application (i.e. discovering a network printer located on the same network as the PC). It should be noted that in D2 the netprn DNS service is integrated in a Server Printer (i.e. Print-B) which stores a table of available network printers in an equivalent way as the printer disclosed in D1 (cf. '12', Fig. 5A). The skilled person would therefore regard it as a normal option to include this feature of D2 in the method of locating and setting up a topology of network devices described in document D1 in order to solve the problem posed.

2.3 The additional features of the dependent claims do not add anything new or inventive to the independent claims, because these features are known from the above mentioned prior art (i.e. the network device comprising PDA, printer, etc, comprising a network interface, the network (i.e. Internet) consisting of multiple interconnected networks, identifying information is an address) or common measures (i.e. network comprising a firewall).

Re Item VII

Certain defects in the international application

1 The claims have not been casted in the two-part form recommended by Rule 6.3 (b) PCT having a pre-characterising portion which correctly reflects the prior art of the cited document D1 or D2.

- 2 The claims do not include reference signs relating to the technical features referred to therein, Rule 6.2 (b) PCT.
- 3 The opening part of the description does not acknowledge the background art of the invention Rule 5.1 (a) (ii)
- 3 The vague and imprecise statement "various modifications can be made ... without departing from the scope and spirit of this invention" in the description on page 25 implies that the subject-matter for which protection is sought may be different to that defined by the claims, thereby resulting in lack of clarity of the claims (Article 6 PCT) when used to interpret them.

Re Item VIII

Certain observations on the international application

The application does not meet the requirements of Article 6 PCT.

- 1 The application is not concise, because it contains two independent claims the same category (claims 1 and 13).
- 2 Method claims 2-12 and 14-24 comprise features of an apparatus (e.g. "the first network device comprises ... a computer ...", ...) and are therefore not clear concerning their category.
- 3 The expression "the network device is located inside the firewall" used in claims 9 and 21 is unclear, because it is not clear how one network device can be located within another network device.